

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A permission token management system comprising:

a token storage means for storing tokens which correspond respectively to a plurality of permissions installed in a terminal and are calculated by a predetermined conversion process performed to permission character strings indicating the permissions, the permissions being restricted functions used by one or more application programs during normal operation;

conversion means for, when a permission character string indicating a specific permission is input, performing the predetermined conversion process to the permission character string; and

searching means for searching the token storage means using a token which is a conversion result of the conversion means, and determining whether the token exists in the token storage means or not.

2. (Currently Amended) A permission token management method comprising the steps of:

storing tokens which correspond respectively to a plurality of permissions installed in a terminal and are calculated by a predetermined conversion process performed to permission character strings indicating the permissions, the permissions being restricted functions used by one or more application programs during normal operation;

when a permission character string indicating a specific permission is input, performing the predetermined conversion process to the permission character string; and

searching the stored tokens using a token which is a conversion result of the conversion process, and determining whether the token exists in among the stored tokens or not.

3. (Previously Presented) The permission token management method as in claim 2, wherein the steps are embodied as a program embedded in a recording medium, the program causing a computer to execute each step.

4. (Canceled)

5. (Currently Amended) A permission token management system comprising:

a token storage means for storing tokens which correspond respectively to a plurality of permissions installed in a terminal and are calculated by a predetermined conversion process performed to permission character strings indicating the permissions, the permissions being restricted functions used by one or more application programs during normal operation;

search request/saving means for, when a permission character string indicating a permission necessary for normally operating an application program intended to be downloaded is input, outputting a search request including the permission character string;

conversion means for performing the predetermined conversion process to the permission character string included in the search request output from the search request/saving means, and outputting a token which is a conversion result; and

first searching means for searching the token storage means ~~table~~ using the token output from the conversion means to thereby determine whether a permission necessary for normally operating the application program is installed in the terminal or not.

6. (Original) The permission token management system as claimed in claim 5, further comprising:

a token attribute information table within which, relating to each of the plurality of permissions installed in the terminal, a token of the permission and attribute information including conditions of use are registered in correspondence with each other; a permission database;

token obtaining means for, when a permission character string indicating a permission desired for use is output from the application program at the time of executing the application program, outputting a token obtaining request including the permission character string to the conversion means, and receiving a token output from the conversion means responding to the token obtaining request; and

second searching means for determining whether to authorize the application program to use the permission or not, in accordance with the attribute information of the permission which corresponds to the token and is obtained by searching the permission database using the token received by the token obtaining means;

wherein the conversion means has a function of, responding to the token obtaining request from the token obtaining means, performing the predetermined conversion process to the permission character string being requested for obtaining the token, and outputting a conversion result to the token obtaining means, and the search request/saving means has a function of, when the permission necessary for normally operating the application program is determined by the first searching means to be installed in the terminal, obtaining the attribute information of the permission from the token attribute information table, and registering in the permission database the attribute information and the token of the permission in correspondence with each other.

7. (Original) The permission token management system as claimed in claim 6, wherein the conditions of use of the permission include an identifier of the application program.

8. (Previously Presented) The permission token management system as claimed in claims 1 or 5, wherein the conversion means has a function of obtaining a hash value corresponding to a permission character string.

9. (Previously Presented) The permission token management system as claimed in claims 1 or 5, wherein the token has less number of characters than that of the permission character string.

10. (Currently Amended) A permission token management method comprising the steps of:

storing tokens which correspond respectively to a plurality of permissions installed in a terminal and are calculated by performing a predetermined conversion process to permission character strings indicating the permissions, the permissions being restricted functions used by one or more application programs during normal operation;

when a permission character string indicating a permission necessary for normally operating an application program intended to be downloaded is input, outputting a search request including the permission character string;

performing the predetermined conversion process to the permission character string included in the search request, and outputting a token which is a conversion result; and

by using the token, determining whether a permission necessary for normally operating the application program is installed in the terminal or not.

11. (Previously Presented) The permission token management method as in claim 10, wherein the steps are embodied as a program embedded in a recording medium, the program causing a computer to execute each step.

12. (Canceled)